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FEDERAL COMMUNICATIONS COMMISSION
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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Implementation of Sections 3(n)	)	
and 332 of the Communications Act	)	GN Docket No. 93-252
	)	
Regulatory Treatment of	)	
Mobile Services	)	

REPLY COMMENTS OF MOTOROLA INC.

Motorola Inc. ("Motorola") hereby submits these reply comments in the above captioned proceeding. The opening comments reflect strong support for the Commission's effort to reconcile the rules used to govern substantially similar commercial mobile radio service ("CMRS") operators, and to simplify regulatory burdens to the greatest extent possible. As discussed herein, Motorola also supports this effort, but cautions that "regulatory parity" does not demand that competitors in the CMRS marketplace be subject to identical rules. Rather, the Commission should strive to establish a regulatory framework that takes into account the technical, operational, and historical differences that affect each provider's competitive status. In addition, because the imposition of an overall CMRS spectrum aggregation cap would seriously undermine this effort, the vast majority of the commenters, including Motorola, urge the Commission to abandon its spectrum cap proposal.

Respectfully Submitted By:

Mary E. Brooner

Mary E. Brooner
Manager, Wireless Regulatory Policies
Motorola, Inc.
1350 I Street, N.W.
Washington, D.C. 20005

July 11, 1994

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I. INTRODUCTION AND SUMMARY

Motorola hereby files these reply comments in response to the Further Notice of Proposed Rule Making recently adopted by the Commission in the above-captioned docket.[1] Approximately 59 parties filed comments responding to the *Further Notice*. Nearly all of the commenters acclaim the Commission's effort to identify the technical, operational, and licensing rules that must be amended in order to eliminate inconsistencies in the regulatory treatment of substantially similar CMRS providers. A number of the commenters also counsel, however, that the goal of regulatory symmetry does not mandate that the rules applicable to competing CMRS operators must be identical. Rather, most commenters agree that the Commission can best promote the broader objective of fostering the development of a vibrant and highly competitive mobile services marketplace if it endeavors to create a regulatory framework that takes into account the technical, operational, and historical differences that affect each CMRS provider's competitive status.

With this in mind, Motorola's reply comments identify those rules that appear to cause competitive imbalances among substantially similar CMRS providers, and recommend changes that will help create a more equitable regulatory environment. In particular, Motorola supports the following actions:

- Adoption of geographic licensing schemes for 800 MHz SMRs, 900 MHz SMRs, and 931 MHz paging operations;
- Retention of existing co-channel interference criteria applicable to specific CMRS services, with eventual modification upon adoption of a geographic licensing scheme for SMR licensees;

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[1] *Implementation of Sections 3(n) and 332 of the Communications Act, Regulatory Treatment of Mobile Services*, FCC 94-100 (released May 20, 1994) [hereinafter *Further Notice*].

- Maintenance of existing antenna height and power rules, with maximum flexibility accorded to all operators;
- Elimination of emission and modulation requirements in services where frequencies are licensed on an exclusive basis;
- Reliance on market forces to resolve interoperability issues, with no Commission-imposed requirements;
- Adoption of uniform construction period and operational requirements;
- Elimination of loading requirements;
- Elimination of end-user eligibility restrictions;
- Adoption of consistent station identification requirements that minimize the burdens on licensees; and
- Adoption of definitions of "major" and "minor" amendments and modifications that promote licensee flexibility while conforming to statutory requirements.

In addition, Motorola urges the Commission to abandon its proposal to impose a cap on the aggregation of CMRS spectrum. The record in this proceeding affirmatively demonstrates that the imposition of a CMRS spectrum aggregation limit is unnecessary and unwarranted, and would be contrary to the best interest of the public. As such, the Commission has no basis for proceeding with its spectrum cap proposal, which should be terminated forthwith.

II. TECHNICAL, OPERATIONAL, AND LICENSING RULES

As noted above, Motorola urges the Commission to modify the rules applicable to substantially similar CMRS providers only as necessary to eliminate rules and policies that

create unfair competitive advantages. Guided by this basic principle, Motorola advances the following specific suggestions.

A. Channel Assignment and Service Area

1. 800 MHz SMRs. In the *Further Notice*, the Commission solicited commenters' views as to whether the channel assignment rules for 800 and 900 MHz SMR operations should be revised to facilitate licensing on a wide-area, multi-channel basis, comparable to cellular and broadband personal communications service ("PCS") licensing.[2] Motorola agrees with various other commenters who argue that, in order for SMRs to compete effectively with cellular and PCS, a geographic licensing scheme should be adopted for wide-area SMR operations.[3] The existing licensing scheme, which requires an SMR licensee seeking to build wide-area, multi-channel systems to apply separately for each individual station site and for each conventional channel or trunked channel group to be included in its system, places wide-area SMRs at a distinct disadvantage vis-a-vis cellular and PCS competitors, which are licensed on the basis of large, contiguous spectrum blocks over a wide area.

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[2] *Further Notice* ¶ 29.

[3] *See, e.g.*, Comments of the American Mobile Telecommunications Association, Inc. ("AMTA") at 15; Comments of Dial Page, Inc. ("Dial Page") at 7; Comments of Geotek Communications, Inc. ("Geotek") at 10; Comments of Nextel Communications, Inc. ("Nextel") at 15; Comments of OneComm Corporation ("Onecomm") at 4-5; Comments of Pittencrieff Communications, Inc. at 5; Comments of RAM Mobile Data USA Limited Partnership ("RAM Mobile Data") at 6.

In addition, Motorola agrees with Nextel's suggestion that, to ensure uniformity among wide-area CMRS services, the Commission should issue wide-area SMR licenses based on MTAs.[4] Significantly, the Commission has previously recognized that the use of MTAs in issuing wide-area SMR licenses is appropriate because MTAs are large enough to permit SMR systems to re-use spectrum efficiently and provide licensees the flexibility and coverage required to fulfill customers' demands for complete coverage throughout their business areas.[5]

Motorola also supports the plan put forward by AMTA in its reply comments filed today in this proceeding, which recommends that one wide-area SMR license be awarded per MTA.[6] The SMR industry has been seeking to establish an approach that is workable from the standpoint of both the Commission and affected licensees, and that accommodates the needs of competing licensees in the most equitable manner possible. Motorola is encouraged by the industry's efforts to obtain agreement concerning the proper way to address those situations where multiple parties have pending wide-area SMR applications, and believes that the proposal advanced in AMTA's reply comments will be successful.

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[4] Comments of Nextel at 15; *see also* American Mobile Telecommunications Association, Inc. Petition for Rule Making, RM 8117 (filed October 26, 1992) (AMTA Blueprint).

[5] *Amendment of Part 90 of the Commission's Rules To Facilitate Future Development of SMR Systems in the 800 MHz Frequency Band*, 8 FCC Rcd 3950, 3952-53 (1993) (Notice of Proposed Rule Making).

[6] *See* Reply Comments of AMTA, FCC 94-100 (filed July 11, 1994).

2. 900 MHz SMRs. Motorola also recommends that the Commission adopt an MTA-based licensing scheme for the issuance of 900 MHz SMR licenses. With regard to these licenses, however, Motorola agrees with AMTA and RAM Mobile Data that the Commission must recognize the needs of existing licensees before accepting applications from new entrants. Accordingly, Motorola urges the Commission to adopt the proposed licensing scheme for 900 MHz SMRs suggested by these commenters. Under this proposal, the agency would complete the 900 MHz licensing process by establishing an MTA-based, wide-area licensing framework with initial licensing open only to existing licensees who wish to expand their systems throughout the MTA. After single, contiguous, MTA-based, wide-area authorizations are granted to existing licensees, the remaining 900 MHz SMR spectrum would be available to new service providers through the Commission's competitive bidding process.[7] Finally in this regard, Motorola also endorses AMTA's suggestion that nationwide licensing is no longer a viable alternative for 900 MHz SMRs because most of the major markets are already occupied by existing licensees.[8] Accordingly, Motorola urges the Commission to abandon its outstanding proposal to issue some 900 MHz SMR authorizations

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[7] Comments of AMTA at 17; Comments of RAM Mobile Data at 3-4.

[8] Comments of AMTA at 18.

on a nationwide basis, and encourages the Commission instead to issue all remaining 900 MHz SMR licenses on an MTA-wide basis.[9]

3. Paging. The Commission also solicits comment as to whether it is necessary or practical to revise the channel assignment criteria for Part 90 services other than SMRs that are subject to reclassification, such as paging.[10] Motorola concurs with those commenters who suggest that the public interest would be served by the adoption of a market-based licensing scheme for 931 MHz paging systems.[11] Motorola agrees with PCIA's assessment that the adoption of a market-based exclusivity licensing approach in the paging context would offer numerous benefits, including reduced regulatory delays and costs, the encouragement of publicly beneficial wide-area mobile service offerings, elimination of gamesmanship through overfilings, and the minimization of the filing of mutually exclusive applications.[12] In addition, Motorola supports the adoption of PCIA's industry consensus plan, submitted in PCIA's reply comments filed today, which advocates the creation of state-wide market regions for paging systems in the 931 MHz band.

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[9] *Amendment of Parts 2 and 90 of the Commission's Rules To Provide for the Use of 200 Channels Outside the Designated Filing Areas in the 896-901 MHz and 935-940 MHz Bands Allotted to the Specialized Mobile Radio Pool*, 8 FCC Rcd 1469, 1472 (1993) (First Report and Order and Further Notice of Proposed Rule Making).

[10] *Further Notice* ¶ 35.

[11] *See, e.g.*, Joint Comments of AirTouch Paging and Arch Communications Group, Inc. at 9; Comments of the National Association of Business and Educational Radio, Inc. ("NABER") at 24; Comments of Paging Network, Inc. ("PageNet") at 14-16; Comments of the Personal Communications Industry Association ("PCIA") at 10.

[12] Comments of PCIA at 10-11.

B. Co-channel Interference Protection Criteria

The Commission also requested commenters to discuss whether regulatory parity requires the revision of the co-channel interference protection criteria currently applied to CMRS operators on a service-specific basis.[13] Although the commenters appear somewhat divided on this issue, Motorola urges the Commission to retain the existing co-channel interference criteria applicable to separate CMRS services. Motorola agrees with several other parties who argue that the amendment of these rules is not immediately necessary in order to further the goal of comparable regulatory treatment, and that the modification of the existing co-channel interference protection rules would impose a substantial burden on licensees in attempting to comply with new interference criteria.[14]

In addition, Motorola notes that, under the Commission's existing rules, 800 and 900 MHz SMR facilities receive co-channel interference protection solely through minimum mileage separation standards.[15] When SMR applicants seek the assignment of stations at distances less than those specified in the Commission's rules, they must abide by the criteria contained in the "short-spacing table" found in Section 90.621(c). The table takes into consideration the operating parameters of existing co-channel stations and prescribes antenna

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[13] *Further Notice* ¶ 40.

[14] *See, e.g.*, Comments of AMTA at 7; Comments of GTE Service Corporation ("GTE") at 10; Comments of NABER at 25.

[15] *See* 47 C.F.R. § 90.621(b) (1993).

height and power limits for proposed stations at specified distances in order to provide existing facilities with 18 dB of protection at the defined service contour. This approach is referred to as "40/22 dBμ contour protection." Conversely, cellular licensees are simply required to coordinate frequency usage with other cellular licensees having service areas within 75 miles of the affected base stations.[16]

Over the past several years, Motorola has been deeply involved in the refinement of the co-channel protection standards for Part 90 facilities operating in the 800 and 900 MHz bands.[17] Specifically, with regard to the "short-spacing" of SMR facilities, Motorola has continually expressed its concern that the Commission's licensing policies inadequately protect existing licensees and, therefore, threaten to degrade the high standard of quality now enjoyed by users in the upper UHF frequency bands. The Commission's most recent decision in PR Docket No. 93-60 to adopt a short-spacing table providing existing SMR stations with 40/22 dBμ protection and prohibiting co-channel assignments at distances less than 55 miles was a step in the right direction. The applications and grants made pursuant to the modified criteria are complex and highly dependent upon the location of multiple co-channel facilities. A comprehensive revision in the standards would cause yet another round

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[16] 47 C.F.R. § 22.902(d)(1) (1993).

[17] *See, e.g., Amendment of Part 90 of the Commission's Rules To Permit the Short-Spacing of Specialized Mobile Radio Systems Upon Concurrence from Co-Channel Licensees, 6 FCC Rcd 4929 (1991) (Report and Order), recon.*, 7 FCC Rcd 6069 (1992) (Memorandum Opinion and Order); *Co-Channel Protection Criteria for Part 90, Subpart S Stations Operating Above 800 MHz*, 8 FCC Rcd 7293 (1993) (Report and Order).

of license modifications, with questionable benefits, as co-channel users in the same geographic area remain protected.

Parity between the SMR service and other CMRS providers will be best achieved through the creation of broad geographic licensing areas for SMRs. Over time, wide-area licensing of SMRs will simplify any specific co-channel protection criterion as SMR licensees likely will tend to acquire exclusive frequency use over far greater service areas than is currently allowed. Until such time, however, the SMR service will suffer from a greater number of co-channel interferers than either cellular or PCS.

C. Antenna Height and Power Limits

Motorola also urges the Commission to retain the existing antenna height and transmitter power rules applicable to various CMRS operators. In particular, the Commission should continue to provide the power and height flexibility allowed under the existing SMR rules. This flexibility has assisted in the development of efficient and innovative systems, such as ESMRs, and serves the public interest by permitting licensees to configure their systems in a manner that will allow them to compete effectively and to deliver service to a greater number of geographic areas.[18] Significantly, the Commission explicitly recognized the benefits of flexible power and height limits when it amended the rules

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[18] *See* Comments of Nextel at 41.

applicable to broadband PCS operators by increasing the maximum base station power limit.[19] Similarly here, the agency should retain the flexibility in its existing rules, which will maximize the ability of SMR licensees to compete effectively with other CMRS providers, such as cellular and PCS, and promote the effective delivery of service to less populated areas.[20]

D. Modulation and Emission Requirements

Similarly, Motorola advises the Commission to afford licensees the maximum permissible flexibility in choosing modulation and channel access technology. Accordingly, Motorola agrees with those commenters who maintain that there is no need to impose emission and modulation restrictions in services where frequencies are licensed on an exclusive basis, provided that licensees comply with the requirements that protect against co-channel interference, adjacent channel interference, and similar concerns.[21]

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[19] *Amendment of the Commission's Rules To Establish New Personal Communications Services*, FCC 94-144, ¶ 172 (June 13, 1994) (Memorandum Opinion and Order).

[20] For similar reasons, both NABER and AMTA also urge the Commission to retain its existing height and power limits. *See* Comments of NABER at 7, 26; Comments of AMTA at 7.

[21] *See, e.g.*, Comments of the Cellular Telecommunications Industry Association ("CTIA") at 3-4; Comments of McCaw Cellular Communications, Inc. ("McCaw") at 27-28; Comments of NABER at 28; Comments of Nextel at 40.

E. Interoperability

Nearly all of the commenters that address the issue oppose the imposition of mandatory interoperability requirements on all CMRS providers.[22] These commenters argue that the adoption of mandatory interoperability standards would disserve the public interest by slowing new service entry,[23] imposing regulatory burdens on certain CMRS providers that are not imposed on PCS operators,[24] increasing equipment costs,[25] and stifling innovation.[26] In addition, certain commenters maintain that it is unnecessary for the Commission to adopt mandatory interoperability requirements because the mobile radio industry has demonstrated that, if necessary, it is capable of formulating industry-wide standards.[27]

Motorola concurs that the imposition of mandatory interoperability standards for all CMRS providers is unnecessary and will likely burden the development of new services.

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[22] Comments of American Personal Communications ("APC") at 4-5; Comments of Ericsson Corporation at 2-4; Comments of Geotek at 19; Comments of NABER at 28; Comments of New Par at 9; Comments of PageNet at 24; Comments of Pittencrieff Communications, Inc. at 10; Comments of RAM Mobile Data at 8; Comments of Southwestern Bell Corporation at 12-13.

[23] Comments of APC at 4-5.

[24] Comments of Ericsson Corporation at 4.

[25] Comments of NABER at 29.

[26] Comments of NABER at 29; Comments of Pittencrieff Communications, Inc. at 10; Comments of RAM Mobile Data at 8.

[27] Comments of Ericsson Corporation at 3; Comments of New Par at 10; Comments of PageNet at 24.

Motorola therefore urges the Commission not to adopt rules to this effect. Furthermore, Motorola agrees with those commenters who stated that increased costs for equipment will result from mandatory interoperability standards. Motorola believes that such a consequence is contrary to the best interest of the public.

F. Construction Period and Coverage Requirements

In the *Further Notice*, the Commission stated its belief that comparable treatment of substantially similar CMRS operations requires the establishment of a uniform "baseline" construction requirement, and proposed to adopt a 12-month construction requirement applicable to CMRS licensees under both Parts 22 and 90, except where a longer time period is specifically authorized. In addition, the Commission proposed to require that licensees not only complete construction within this period, but that they also commence service by the 12-month deadline.[28] A majority of the commenting parties addressing the issue express support for the proposed 12-month construction period.[29] With certain revisions, most

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[28] *Further Notice* ¶¶ 62-63.

[29] *See, e.g.*, Joint Comments of AirTouch Paging and Arch Communications Group, Inc. at 5; Comments of AMTA at 7; Comments of Celpage, Inc. at 15-16; Comments of Geotek at 19; Comments of Metrocall at 15; Comments of NABER at 29; Comments of Network USA at 15-16; Comments of NYNEX Corporation ("NYNEX") at 4; Comments of PageNet at 25; Comments of PCC Management Corp. at 8; Comments of Pittencrieff Communications, Inc. at 11; Comments of RAM Mobile Data at 10; Comments of RAM Technologies, Inc. at 15-16.

commenters also support the Commission's proposal to require a licensee's system to be "in operation" by the end of the construction period.[30]

Motorola supports the implementation of a uniform 12-month construction period for all CMRS operators. The Commission's proposal will promote the goal of regulatory parity by eliminating an unnecessary inconsistency between the rules applicable to CMRS operators regulated under Parts 22 and 90. In addition, a 12-month construction period is an appropriate length of time to permit most CMRS operators to construct their systems and have them ready to commence operating. Finally, the adoption of a single standard governing the construction and operational requirements applicable to all CMRS providers, except for those that qualify for extended implementation, will provide for greater consistency in regulatory treatment and ease the Commission's enforcement obligations.

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[30] *See, e.g.*, Comments of AMTA at 8; Comments of McCaw at 28; Comments of Celpage, Inc. at 15-17; Comments of Metrocall at 15-17; Comments of NABER at 30-31; Comments of Network USA at 15-16; Comments of PageNet at 26; Comments of RAM Technologies, Inc. at 15-17; Comments of PCIA at 16. Several of these commenters urge the Commission to clarify that "commencement of service" does not mean the actual provision of service to subscribers, but requires only that the licensee's system be constructed and ready for operation. *See, e.g.*, Comments of Celpage, Inc. at 16-17; Comments of McCaw at 28; Comments of PCIA at 16. Motorola does not oppose this suggestion.

G. Loading Requirements

Almost unanimously, the commenters support the Commission's proposal to eliminate the loading requirements currently imposed under Part 90.[31] Motorola believes that, because no loading requirements exist under Part 22, the elimination of the Part 90 loading rules will help achieve the goal of comparable regulatory treatment. In addition, Motorola agrees with those commenters who maintain that the retention of loading rules is unnecessary to prevent spectrum warehousing, and consequently serves no valid purpose.[32] Accordingly, Motorola urges the Commission to eliminate the remaining loading requirements applicable to Part 90 CMRS operators.

H. End-user Eligibility

Most commenters also support the Commission's proposal to eliminate the end-user eligibility restrictions that are still applied under Part 90.[33] Motorola is of the view that

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31 *See, e.g.*, Comments of AirTouch Paging and Arch Communications Group, Inc. at 11; Comments of AMTA at 11-13; Comments of Brown and Schwaniger at 13-14; Comments of Celpage, Inc. at 19; Comments of Geotek at 21; Comments of Metrocall at 17-18; Comments of Network USA at 18; Comments of PageNet at 27; Comments of Pittencrieff Communications, Inc. at 11; Comments of RAM Mobile Data at 10; Comments of RAM Technologies, Inc. at 18; Comments of The Southern Company at 7; Comments of WJG Maritel Corporation at 6-7.

32 *See, e.g.*, Comments of AMTA at 12.

33 *See, e.g.*, Comments of Celpage, Inc. at 19; Comments of Metrocall at 19; Comments of NABER at 33; Comments of Network USA at 19; Comments of Nextel at 49; Comments of PageNet at 27; Comments of Pittencrieff Communications, Inc. at 12; Comments of RAM Mobile Data at 18; Comments of RAM Technologies, Inc. at 18; Comments of The Southern Company at 10; Comments of US West at 9.

because end-user eligibility restrictions are tied to the historical distinction between common carriage and private radio regulation, these limitations are no longer necessary as applied to Part 90 CMRS providers. Accordingly, Motorola encourages the Commission to adopt its proposal to eliminate these restrictions as they apply to reclassified Part 90 operators.

I. Station Identification

Motorola endorses AMTA's recommendation that the Commission retain its existing station identification rules applied to traditional SMRs, but that, in conjunction with the agency's conversion to geographic licensing of wide-area SMRs, the Commission should adopt station identification rules for wide-area SMRs that parallel those applicable to the cellular service.[34] In this connection, Motorola also supports the Commission's proposal to adopt a general rule requiring all CMRS licensees that operate multiple station systems to use a single call sign on a system-wide basis.[35] The adoption of a general rule to this effect will allow the Commission to ensure that spectrum users continue to be able to identify possible sources of interference while concomitantly reducing the regulatory burden on all CMRS licensees. In addition, Motorola agrees with NABER's suggestion that all CMRS

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34 Comments of AMTA at 16.

35 *Further Notice* ¶ 82.

licensees should be allowed to transmit their identification in digital form, as is permitted under Part 90.[36]

J. Amendment of Applications and License Modifications

Motorola concurs with the Commission's conclusion that Section 309 of the Communications Act mandates that major amendments to all CMRS applications and major modifications to existing facilities must be placed on public notice and are subject to petitions to deny in the same manner as initial applications.[37] Motorola also agrees with the Commission's assessment that regulatory parity dictates that "major" and "minor" be defined in an identical manner for all CMRS modification applications.[38] In addition, however, Motorola urges the Commission to adopt definitions of "major" and "minor" amendments and modifications that will give licensees the greatest permissible operational flexibility and maximize their ability to respond to customer demand without injuring the operations of other licensees or undercutting their filing rights.

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36 Comments of NABER at 34.

37 *Further Notice* at 131.

38 *Id.*

III. THE RECORD DOES NOT SUPPORT THE COMMISSION'S PROPOSAL TO ADOPT A BLANKET SPECTRUM CAP APPLICABLE TO ALL SERVICES CLASSIFIED AS CMRS

In its opening comments, Motorola expressed strong opposition to the Commission's proposal to place a general cap on the aggregation of CMRS spectrum. Specifically, Motorola stated that the imposition of an across-the-board CMRS spectrum aggregation limit is unnecessary in light of the fact that, in an earlier phase of this docket, the Commission explicitly found that, with the possible exception of cellular, all of the mobile services that comprise the broader CMRS rubric are fully competitive.[39] In addition, Motorola argued that an overall cap on the aggregation of CMRS spectrum is unwarranted because the Commission's rules limiting the accumulation of PCS and cellular spectrum already ensure that no single licensee will be able to dominate the CMRS marketplace. Finally, Motorola maintained that the adoption of the Commission's spectrum cap proposal would, by its very nature, unfairly prohibit existing licensees from participating in new spectrum allocations and future technological developments, thereby depriving the public of the well-established benefits brought by existing operators to new services by virtue of their expertise, potential capital investments, and economies of scope.[40]

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[39] Comments of Motorola at 4. *See also Implementation of Sections 3(n) and 332 of the Communications Act, Regulatory Treatment of Mobile Services*, 9 FCC Rcd 1411, 1467-72 (1994) (Second Report and Order) [hereinafter *Regulatory Parity Second Report and Order*].

[40] Comments of Motorola at 3-7.

The vast majority of the commenters share Motorola's strong opposition to the Commission's proposed spectrum aggregation limit. Specifically, of the commenters that address the Commission's spectrum cap proposal, only six express even tepid support for the concept of a CMRS spectrum cap.[41] The record instead evidences vehement opposition to the concept of an overall CMRS spectrum aggregation limit.[42] The majority of the commenters agree with Motorola that the adoption of a general CMRS spectrum cap is unwarranted and unsupported by the record because there is no evidence indicating that the CMRS marketplace is not competitive, and nothing that tends to establish that entities holding large amounts of mobile radio spectrum have exercised or will exercise undue market power.[43] Similarly, several commenters maintain that the large amount of CMRS spectrum

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[41] *See* Comments of APC at 1-2; Comments of Bell Atlantic Companies at 8-10; Comments of Brown and Schwaniger at 16; Comments of New Par at 15; Comments of the Rural Cellular Association at 5-6; Comments of The Southern Company at 14; Comments of Vanguard Cellular Systems, Inc. at 11-14.

[42] *See* Comments of AirTouch Communications ("AirTouch") at 6; Comments of American Mobile Satellite Corporation at 8-12 (as applied to satellite spectrum); Comments of AMTA at 28; Comments of BellSouth Corporation and Affiliates at 6-12; Comments of CTIA at 8-9; Comments of Celpage, Inc. at 21-22; Comments of Century Cellunet, Inc. at 1-3; Comments of Comcast Corporation at 3-8; Comments of Constellation Communications, Inc. at 2-4 (as applied to satellite spectrum); Comments of Dial Page, Inc. at 3-6; Comments of GTE Service Corporation at 18-20; Comments of Loral/Qualcomm Partnership, L.P. ("Loral") at 3-5 (as applied to satellite spectrum); Comments of McCaw Cellular Communications, Inc. at 10-14; Comments of Metrocall at 21-22; Comments of Motorola Inc. at 3-7; Comments of NABER at 37; Comments of Network USA at 21-22; Comments of Nextel at 26; Comments of NYNEX at 4-5; Comments of Onecomm 8-11; Comments of PageMart, Inc. at 4-5; Comments of PageNet at 47; Comments of PCIA at 7-9; Comments of Pittencrieff Communications, Inc. at 15-16 ("reluctant to support" the proposal); Comments of RAM Mobile Data at 14; Comments of RAM Technologies, Inc. at 21-22; Comments of Roseville Telephone Company at 3; Comments of Southwestern Bell Corporation at 5-8, 16; Comments of TRW, Inc. at 1.

[43] *See, e.g.*, Comments of AirTouch at 10-12; Comments of BellSouth Corporation and Affiliates at 6-12; Comments of Comcast at 8; Comments of NYNEX at 4; Comments of RAM Mobile Data at 14.

dedicated to services classified as CMRS,[44] the Commission's existing PCS spectrum aggregation limits,[45] and the existence of rules requiring stations to be constructed and placed in operation within a limited time,[46] already ensure that no one carrier is able to dominate the CMRS marketplace or to hoard spectrum to the detriment of its competitors. In addition, a number of commenters express concern that the imposition of an across-the-board CMRS spectrum aggregation limit would in fact hinder the development of competition and stifle the emergence of new CMRS services by unduly limiting existing operators from participating in new allocations and technologies.[47] Finally, most commenters agree that the use of service-specific spectrum caps is preferable to an overall CMRS spectrum aggregation limit.[48]

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[44] *See, e.g.*, Comments of CTIA at 8; Comments of Century Cellunet at 2; Comments of GTE at 18-19.

[45] *See, e.g.*, Comments of AMTA at 30-32; Comments of Dial Page at 3; Comments of GTE at 18-19; Comments of Motorola at 4-5; Comments of Onecomm at 8-11; Comments of TRW, Inc. at 1-2.

[46] *See, e.g.*, Comments of Century Cellunet at 2; Comments of GTE at 18-19; Comments of Motorola at 5-6.

[47] *See* Comments of AirTouch at 7; Comments of Comcast at 4; Comments of GTE at 18; Comments of McCaw at 10-11; Comments of NABER at 37; Comments of Onecomm at 11; Comments of Pagemart at 4.

[48] *See, e.g.*, Comments of AMTA at 28; Comments of American Personal Communications at 1-2; Comments of Brown & Schwaniger at 16; Comments of Century Cellunet at 3; Comments of Comcast at 6-11; Comments of GTE at 18; Comments of McCaw at 12-14; Comments of Motorola at 7; Comments of NYNEX at 5-6; Comments of Onecomm at 8, 10; Comments of PCIA at 7-9; Comments of Southwestern Bell Corporation at 5-8, 16.

In short, in view of the paucity of support in the record for the Commission's spectrum cap proposal, Motorola agrees with AirTouch's assertion that the imposition of a general CMRS spectrum aggregation limit would be "arbitrary and capricious and would lack any basis in economic theory, antitrust law or fact."[49] In addition, Motorola wishes to underscore its belief, shared by many commenters, that an across-the-board CMRS spectrum cap such as the one proposed by the Commission would work to undermine competition, diversity, and innovation in the CMRS marketplace by precluding existing operators from taking part in newly established services and developing technologies. As discussed in detail in Motorola's opening comments, by preventing existing operators that approximate or exceed the spectrum aggregation limit from participating new services, the imposition of the proposed spectrum cap would deprive the public of the well-established benefits brought by existing service providers to new services by virtue of their expertise, potential capital investments, and economies of scope. Such a result is flatly inconsistent with the Commission's objectives, as well as with the underlying purpose of Congress's amendments to the Communications Act. Accordingly, Motorola urges the Commission to abandon its CMRS spectrum cap proposal.

If the Commission nevertheless wishes to explore further its proposed CMRS spectrum aggregation cap, the agency must establish a record that fully addresses the significant unresolved issues that affect the even-handed application of the cap. Because of

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[49] Comments of AirTouch at 6.

the complexity and breadth of these issues, the limited record before the Commission is inadequate to permit their appropriate consideration. Accordingly, Motorola recommends that if the Commission pursues its spectrum cap proposal, the agency must issue a Further Notice that examines: (1) the amount of CMRS spectrum that licensees should be allowed to accumulate, given the number of services classified as CMRS; (2) the formulation of a methodology for calculating geographic overlap that fairly reflects the various existing CMRS service areas and that takes into account the unique characteristics of different types of CMRS spectrum; and (3) a method for devising an attribution standard that does not unduly restrict broad-based participation by existing licensees in new CMRS offerings.

In addition, if the Commission proceeds with its spectrum cap proposal, Motorola believes that the agency must: (1) make plain that spectrum that remains classified as private radio spectrum during the three-year CMRS transition period is not included in the cap until these operations are reclassified as CMRS in 1996; (2) dismiss the suggestions of those commenters who the urge the agency to impose a cap on the aggregation of SMR spectrum; and (3) exclude the use of Mobile Satellite Service ("MSS") spectrum from the spectrum cap, as MSS space segment capacity should not be classified as CMRS, and it is premature to designate all MSS gateway operators and earth station licensees as CMRS providers because these licensees may not offer service directly to end-users.

IV. CONCLUSION

In summary, Motorola has attempted in these reply comments to identify those technical, operational, and licensing rules applicable to "substantially similar" CMRS providers that must be amended in order to ensure that competing CMRS operators are subject to comparable regulatory treatment. Motorola submits that, by adopting rules and policies consistent with its suggestions, the Commission will promote not only Congress's directive that competing providers be regulated similarly, but also the broader goal that the mobile services marketplace be robustly competitive. In addition, because the vast majority of the commenters agree that the adoption of the Commission's proposal to place a general cap on the amount of CMRS spectrum that licensees may aggregate will hinder the level of competition in the CMRS marketplace and discourage the development of new technologies, Motorola reiterates its request that the Commission abandon its spectrum cap proposal.

Respectfully submitted,

Motorola Inc.

CERTIFICATE OF SERVICE

I, Phyllis Hall, hereby certify that courtesy copies of the attached "Reply Comments of Motorola Inc." have been served via hand delivery on the following persons on this 11th day of July, 1994:

Mr. John Cimko, Jr.
Chief, Mobile Services Division
Common Carrier Bureau
Federal Communications Commission
1919 M Street, N.W., Room 644
Washington, D.C. 20554

Mr. Ed Jacobs
Deputy Chief, Land Mobile and Microwave Division
Private Radio Bureau
Federal Communications Commission
2025 M Street, N.W., Room 5202
Washington, D.C. 20554

Mr. Rudolfo M. Baca, Advisor
Office of Commissioner Quello
Federal Communications Commission
1919 M Street, N.W., Room 802
Washington, D.C. 20554

Ms. Beverly G. Baker
Deputy Chief, Private Radio Bureau
Federal Communications Commission
2025 M Street, N.W., Room 5002
Washington, D.C. 20554

Ms. Nancy Boocker
Staff Attorney, Mobile Services Division
Common Carrier Bureau
Federal Communications Commission
1919 M Street, N.W., Room 644
Washington, D.C. 20554